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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,041	10/19/2005	Joseph P. Kennedy Jr	GRA26 011	5052

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EXAMINER	
BHATTACHARYA, SAM	
ART UNIT	PAPER NUMBER
2617	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,041	KENNEDY JR ET AL.	
	Examiner	Art Unit	
	Sam Bhattacharya	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer et al. (US 6,295,455) in view of Anderson et al. (US 2004/0203429) and Stilip et al. (US 6,334,059).

Regarding claims 1 and 18, Fischer teaches of a method and system for generating an estimate of the gee-location of a frequency hopping mobile appliance operating within a wireless communication system with a plurality of base stations and having a network overlay gee-location system with a plurality of wireless location sensors (Figures 1 and 4), comprising the steps retrieving at said wireless location sensors synchronization information from the forward channel (column 10, lines 38 - 57 and column 8, lines 25 - 31); synchronizing said wireless location sensors with a reverse channel between the mobile appliance and the base station (column 5, lines 35 -46) measuring at said wireless location sensors an attribute of the reverse channel signal (column 5, lines 35 -46); and, generating an estimate of the gee-location of the mobile appliance based in part upon the measured attribute (column 5, lines 35 - 46).

Fischer fails to disclose of monitoring at the wireless location sensors a signal on a forward channel between one of the plurality of base stations and the mobile appliance.

However, Anderson teaches this feature in the Abstract and paragraph 71. Therefore, It would have been obvious to one skilled in the art at the time of invention to have included into

Fischer's mobile location system this feature taught in Anderson for the purpose of detecting movement of the location sensors.

Fischer-Anderson does not specifically teach of as a function of the synchronization information from the forward channel to thereby receive at said wireless location sensors a signal on the reverse channel (though does make note of synchronization in column 10, lines 53 -57 and further of for TeA measured data).

In a related art dealing with position determination, Stilip teaches of as a function of the synchronization information from the forward channel to thereby receive at said wireless location sensors a signal on the reverse channel (column 41,lines 11 - 41). It would have been obvious to one skilled in the art at the time of invention to have included into Fischer's mobile location system, Stilip's synchronization provisions, for the purposes of accurately determining location in the event of emergency, as taught by Stilip.

Regarding claim 2, Fischer in view of Stilip teach all the claimed limitations recited in claim 1. Both Fischer and Stilip further teach of wherein the step of monitoring is accomplished by a dedicated receiver at said wireless location sensors (Fischer: Figures 1 and 4 and column 6, lines 11 -19 and Stilip: column 9, lines 47 -58).

Regarding claim 3, Fisher in view of Stilip teach all the claimed limitations as recited in claim 1. Stilip further teaches of comprising the step of receiving in said wireless location system channel assignment information including hopping sequence (column 20, lines 27 -35 and column 58, lines 46 -58 and column 44, lines 44 -53).

Regarding claim 4, Fisher in view of Stilip teach all the claimed limitations as recited in claim 1. Stilip further teaches of wherein the synchronization information comprises hopping

sequence position (column 20, lines 27 -35 and column 58, lines 46 -58 and column 44, lines 44-53).

Regarding claim 5, Fisher in view of Stilip teach all the claimed limitations as recited in claim 1. Stilip further teaches of wherein the synchronization information comprises hopping sequence phase information (column 20, lines 27 -35 and column 58, lines 46 -58 and column 44, lines 44 -53).

Regarding claim 6, Fischer in view of Stilip teach all the claimed limitations recited in claim 1. Both Fischer and Stilip further teach of comprising the step of referencing the synchronization information with a network overlay clock (Fischer: column 14, lines 17 -23 and Stilip: column 24, lines 64 -66).

Regarding claim 7, Fischer in view of Sfilip teach all the claimed limitations as recited in claim 6. Stilip further teachesfurther comprising the step of changing the monitoring frequency of the plurality of wireless location sensors based at least in part on the network overlay clock (Stilip: colunm 24,lines 38 - 66 and column 41, lines 11 -41).

Regarding claim 8, Fischer in view of Stilip teach all the claimed limitations as recited in claim 1. Stilip further teaches of wherein the plurality of wireless location sensors change monitoring frequency based in part on the synchronization information. (Stilip: column 24,lines 38 - 66 and column 41, lines 11 -41).

Regarding claim 9, Fischer teaches of in a method for gee-locating a mobile appliance comprising the steps of retrieving channel assignment information from a geolocation control system, monitoring a reverse channel at a plurality of sensors for a signal from the mobile appliance, measuring an attribute of the reverse channel signal at the plurality of sensors, and

determining the location of the wireless appliance from the measured reverse channel signal attributes (Figures 1 and 4), the improvement comprising the steps of monitoring a signal in the forward channel to the mobile appliance (Figures 1 and 4 and column 5, lines 38 -45 and column 8, lines 25 - 31); retrieving synchronization information from the forward channel signal (column 10, lines 38 - 57 and column 8, lines 25 - 31); determining synchronization information for the reverse channel from the synchronization information retrieved from the forward channel (column 10, lines 38 - 57 and column 8, lines 25 - 31); and, measuring an attribute era signal in the reverse channel from the mobile appliance to thereby geo-incate the mobile appliance (column 5, lines 35 - 46).

Fischer does not specifically teach of monitoring the reverse channel as a function of the determined synchronization information (though does make note of synchronization in column 10, lines 53 -57 and further of for TOA measured data).

In a related art dealing with position determination, Stilip teaches of monitoring the reverse channel as a function of the determined synchronization information (column 41,lines 11 - 41) and again of determining synchronization information for the reverse channel from the synchronization information retrieved from the forward channel (column 41,1ines 11 - 41).

It would have been obvious to one skilled in the art at the time of invention to have included into Fiscber's mobile location system, Stilip's synchronization provisions, for the purposes of accurately determining location in the event of emergency, as taught by Stilip.

Regarding claim 10, Fischer in view of Stilip teach all the claimed limitations recited in claim 9. Both Fischer and Stilip further teach of wherein the forward channel is a frequency

hopping channel (Fischer: column 2, lines 60 -65 and Stilip: starting column 9, line 64 and ending column 10, line 4).

Regarding claim 11, Fischer in view of Stilip teach all the claimed limitations recited in claim 10. Both Fischer and Stilip further teach of wherein the reverse channel is a frequency hopping channel (Fischer: column 2, lines 60 -65 and Stilip: starting column 9, line 64 and ending column 10, line 4).

Regarding claim 12, Fischer in view of Stilip teach all the claimed limitations recited in claim 11. Both Fischer and Stilip further teach of including the step of receiving channel assignment information including hopping sequence and hop duration. (Fischer: column 2,lines 60 -65 and Stilip: starting column 9, line 64 and ending column 10, line 4 and column 44, lines 44 -51).

Regarding claim 13, Fisher in view of Stilip teach all the claimed limitations as recited in claim 11. Stilip further teaches of wherein the synchronization information comprises hopping sequence position (column 20, lines 27 -35 and column.58, lines 46 -58 and column 44, lines 44 -53).

Regarding claim 14, Fisher in view of Stilip teach all the claimed limitations as recited in claim 11. Stilip further teaches of wherein the synchronization information comprises hopping sequence phase information (column 20, lines 27 -35 and column 58, lines 46 -58 and column 44, lines 44 -53).

Regarding claim 15, Fischer in view of Stilip teach all the claimed limitations recited in claim 11. Both Fischer and Stilip further teach of comprising the step of referencing the

synchronization information with a network overlay clock (Fischer: column 14, lines 17 -23 and Stilip: column 24, lines 64 -66).

Regarding claim 17, Fischer in view of Stilip teach all the claimed limitations as recited in claim 11. Stilip further teaches of wherein the plurality of wireless location sensors change monitoring frequency based in part on the synchronization information. (Stilip: column 24, lines 38 - 66 and column 41, lines 11 -41).

Regarding claim 19, Fischer m view of Stilip teach all the claimed limitations as recited in claim 18. Both Fischer and Stilip further teach of comprising circuitry for providing a stable time reference (Fischer: column 14,lines 17 -23 and Stilip: column 24,lines 64 -66).

Regarding claim 20, Fischer in view of Stilip teach all the claimed limitations as recited in claim 19. Both Fischer and Stilip further teach of wherein said circuitry is operably connected to each of said plurality of sensors (Fischer: column 14, lines 17-23 and Stilip: column 24,lines 64 -66).

Regarding claim 21, Fischer in view of Stilip teach all the claimed limitations as recited in claim 20. Both Fischer and Stilip further teach of wherein said plurality of sensors are tuned to the reverse communication channel between the mobile appliance and one of the plural base station using said stable time reference (Fischer: column 14,lines 17 -23 and Stilip: column 24,lines 64 -66).

Regarding claim 22, Fischer m view of Stilip teach all the claimed limitations as recited in claim 19. Both Fischer and Stilip further teach of wherein said circuitry is a global positioning system clock (Fischer: column 14,1ines 17 -23 and Stilip: column 24, lines 64 -66).

Regarding claim 23, Fischer teaches of in a wireless communication system with plural base stations and a network overlay gee-location system with a plurality of sensors wherein at least one of the plural base stations communicates with a wireless appliance over a forward channel and the wireless appliance communicates with the one of the plural base stations over a reverse channel the reverse channel being a frequency hopping channel, a method of geo-location of the wireless appliance (Figures 1 and 4 and column 5, lines 38 -45 and column 8, lines 25 - 31), the steps of monitoring the forward channel for synchronization information (Figures 1 and 4 and column 10, lines 38 - 57 and column 8, lines 25 - 31).

Fischer does not specifically teach of wherein the forward channel and contains information to synchronize the base station with a hopping sequence of the mobile appliance over the reverse channel and tuning the plurality of sensors to the reverse channel with the synchronization information (though does make note of synchronization in column 10, lines 53 - 57 and further of for TOA measured data).

In a related art dealing with position determination, Stilip teaches of wherein the forward channel and contains information to synchronize the base station with a hopping sequence of the mobile appliance over the reverse channel (column 41,lines 11 - 41) and tuning the plurality of sensors to the reverse channel with the synchronization information (column 41,lines 11 - 41).

It would have been obvious to one skilled in the art at the time of invention to have included into Fischer's mobile location system, Stilip's synchronization provisions, for the purposes of accurately determining location in the event of emergency, as taught by Stilip.

Regarding claim 24, Fischer in view of Stilip teach all the claimed limitations as recited in claim 19. Both Fischer and Stilip further teach of comprising the step of referencing the

synchronization information to a system clock (Fischer: column 14,lines 17 -23 and Stilip: column 24,lines 64 -66).

Regarding claim 25, Fischer in view ef Stilip teach all the claimed limitations as recited in claim 19. Both Fischer and Stilip further teach of wherein the plurality of sensors are tuned to the reverse channel using the system clock (Fischer: column 14,lines 17 -23 and Stilip: column 24,lines 64 -66).

Regarding claim 26, Fischer in view of Stilip teach all the claimed limitations as recited in claim 19. Both Fischer and Stilip further teach of wherein the system clock is a global positioning system clock (Fischer: column 14,lines 17 -23 and Stilip: column 24,lines 64 -66).

Regarding claim 27, Fischer in view of Stilip teach all the claimed limitations as recited in claim 6. Stilip further teaches of further comprising the step of changing the monitoring frequency of the plurality of wireless location sensors based at least in part on a GSM system clock (Stilip: column 24,lines 38 - 66 and column 41, lines 11 -41 and column 43, lines 55 -64).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

sb

/Sam Bhattacharya/

Examiner, Art Unit 2617